WHAT IS CLAIMED IS:

1. An embedded ZGX outline font library, characterized in that:

1) a stroke library based on stroke centerline description, each stroke is divided into several stroke segments according to its shape, which are head, body, corner and tail, the body and the corner can be several segments, in the stroke coordinate system, firstly the segments of stroke centerline are described by the coordinates of feature points on lines or Bezier curves; then the control points of each segment are the key points of stroke centerline; the outline curve is described then by the position relative to the reference of control points of each segment; the stroke data aren't equal to each other; the end of the stroke is signed by data bit of the tail;

the stroke library includes:

the amount of strokes contained in the font, which takes 2 bytes;

the head data of strokes, which takes amount of stroke*4 bytes, each stroke takes 4 bytes, where the first three-byte denotes the pointer of stroke data position, and the last byte denotes curvature change mode (4 bits) of the stroke and the number of segment (4 bits);

the stoke data, which include data of stroke centerline segments, outline data of stroke segments;

the amount of strokes for different fonts are different from each other, generally about 1000, each stroke data takes 20-100 bytes;

2) a Chinese font library composed directly by strokes, its data formats include:

the start position of stroke library relative to the head of font library, which takes 4 bytes;

the total amount of Chinese characters contained in the font library, which takes 4 bytes;

the index table of Chinese characters, which takes 4*amount of characters, each character takes 4 bytes, where the first byte denotes the amount of

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strokes for one character, and the later 3 bytes is the position pointer of a character's each stroke;

the parameter data of every Chinese character include: 8*amount of the character's strokes; every stroke parameters data take 8 bytes, respectively are stroke number taking 2 bytes, thickness coefficient taking 1 byte, stroke position taking 2 bytes, stroke scaling coefficients taking 12 bits and stroke curvature change increments taking 12 bits;

stroke library, whose data format is as same as that of the stroke library described in 1);

3) a Chinese component library composed by strokes, its data format includes:

the largest amount of components' strokes contained in the component library takes 4 bytes, and usually is 20-29, that is, a component comprises 20-29 strokes, the components are ordered by 1-stroke components, 2-stroke components, till 20~29-stroke components;

the index table of N-stroke component: the largest amount of strokes is supposed to be N, the component data composed by strokes takes 4*N bytes, the position of each category component takes 4 bytes, which are ordered by 1-stroke component position, 2-stroke component position, till N-stroke component position, if there are several components composed by certain amount of strokes, those components are ordered from No.1 to the amount of this kind of components, each 2-stroke component data takes 2*8 bytes, each 3-stroke component data takes 3*8 bytes, and so on;

component parameter data take 8*amount of the component's strokes bytes, each stroke parameters data take 8 bytes, respectively are each stroke number taking 2 bytes, thickness coefficient taking 1 bytes, stroke's position taking 2 bytes, scaling coefficients taking 12 bits, and curvature change increment taking 12 bits;

4) a Chinese font library composed by components, its data formats include:

version information, which takes 4 bytes, the first 2 bytes is the name of corporation, the third byte is the symbol of the font style and the last byte is the symbol of the characters sets;

the start position of character parameter field, which takes 4 bytes;

the start position of component parameter field, which takes 4 bytes;

the start position of stroke data field, which takes 4 bytes;

character index data table includes: 4*the total amount of characters bytes; the first 4 bytes is the total amount of characters, and then each 4 bytes denote the index of each character, where the first 3 bytes denote the position of character parameter data, and the last 1 byte is the amount of components;

character parameter data: the description of parameters for each component takes 6 bytes, that is, component number taking 11 bits, the amount of strokes contained in the component taking 5 bits, component position taking 2 bytes, component scaling coefficients taking 12 bits and component thickness coefficient taking 6 bits;

the component parameters data: see 3); stroke library: see 1);

5) a compact shared format of multi-font library, the number of one component of all kinds of fonts is the same, which needs to be described in only one font, while other font can share this part of data, the data format is described as following:

the basic font format, that has been described in section 1.4;

other font data format is:

the start position of character parameter area: 4 bytes;

the start position of component parameter area: 4 bytes;

the start position of stroke parameter area: 4 bytes;

character index data table: 4*(1+amount of characters) bytes; the first 4 bytes is the total amount of characters; later, every 4 bytes is the index of every character, where the first 3 bytes is the character parameter data position and the last byte is the component amount of the character;

character parameter data: the parameter describing a character's every

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component takes 4 bytes, that is, component position taking 2 bytes, component scaling coefficients taking 12 bits and component thickness coefficient taking 6 bits;

component parameter data: see 3), but without stroke number; stroke library: see 1);

6) a revivification explainer for strokes of outline font libraries based on stroke centerline;

7) a revivification explainer for stroke-composed characters of outline font libraries based on stroke centerline;

8) a revivification explainer for stroke-composed components of outline font libraries based on stroke centerline;

9) a revivification explainer for component-composed characters of outline font libraries based on stroke centerline;

10) a revivification explainer for multi-font part data-shared characters of outline font libraries based on stroke centerline.